



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R10-OAR-2020-0649; FRL-8788-01-R10]

Air Plan Approval; AK; Juneau's Mendenhall Valley Second 10-Year PM₁₀ Limited Maintenance Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve the Juneau, Mendenhall Valley, Alaska (AK) limited maintenance plan (LMP) submitted on November 10, 2020, by the Alaska Department of Environmental Conservation (ADEC or “the State”). This plan addresses the second 10-year maintenance period beyond redesignation for particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM₁₀). A LMP is used to meet Clean Air Act (CAA) requirements for formerly designated nonattainment areas that meet certain qualification criteria. The EPA is proposing to determine that Alaska's LMP meets CAA requirements. The plan relies upon control measures contained in the first 10-year maintenance plan and the determination that the Mendenhall Valley area currently monitors PM₁₀ levels well below the PM₁₀ National Ambient Air Quality Standards (NAAQS or “the standard”).

DATES: Comments must be received on or **[Insert date 30 days after date of publication in the Federal Register]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R10-OAR-2020-0649, at <https://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is

restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, **please** visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Christi Duboiski, EPA Region 10, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101, at (360) 753-9081, or duboiski.christi@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document, wherever “we”, “us” or “our” is used, it means the EPA.

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I. Background

On August 7, 1987, the EPA designated the City of Juneau, Mendenhall Valley area (Mendenhall Valley) as a PM₁₀ nonattainment area (NAA) due to measured violations of the 24-hour PM₁₀ NAAQS (52 FR 29383). The publication announcing the designation upon enactment of the 1990 CAA Amendments was published on March 15, 1991 (56 FR 11101). On November 6, 1991, the Mendenhall Valley NAA was subsequently classified as moderate under sections 107(d)(4)(B) and 188(a) of the CAA (56 FR 56694). ADEC worked with the City of Juneau and the community of Mendenhall Valley to develop a plan to bring the area into attainment no later

than December 31, 1994. The State submitted the plan to the EPA on June 22, 1993, as a moderate PM₁₀ State Implementation Plan (SIP) under section 189(a) of the CAA. The primary control measures the plan relied on were a wood smoke control program and paving unpaved roads to control fugitive dust. The EPA took final action to approve the State's moderate PM₁₀ SIP on March 24, 1994 (59 FR 13884).

On May 8, 2009, the State requested the EPA redesignate the Mendenhall Valley NAA to attainment for PM₁₀ and submitted the Mendenhall Valley PM₁₀ LMP to the EPA for approval. On July 16, 2010, the EPA determined the Mendenhall Valley NAA had attained the PM₁₀ NAAQS as of the extended attainment date of December 31, 1995 (75 FR 41379). On May 9, 2013, the EPA took direct final action to approve the LMP submitted by the State for the Mendenhall Valley NAA and concurrently redesignated the area to attainment for the PM₁₀ NAAQS (78 FR 27071).

The purpose of the State's November 10, 2020 LMP is to fulfill the second 10-year planning requirement of CAA section 175A(b) to ensure PM₁₀ NAAQS compliance through 2033.

II. Limited Maintenance Plan Option for PM₁₀ Areas

A. Requirements for the Limited Maintenance Plan Option

Section 175A of the CAA sets forth the elements of a maintenance plan. Under section 175A, a state must submit a plan to demonstrate continued attainment of the applicable NAAQS for at least 10 years after an area is redesignated to attainment. The state must then submit a revised maintenance plan demonstrating that the area will continue to attain for the 10 years following the initial 10-year period. On September 4, 1992, the EPA issued guidance on the content of a maintenance plan (Memorandum from John Calcagni, Director, Air Quality Management Division, entitled "Procedures for Processing Requests to Redesignate Areas to

Attainment,” (Calcagni Memo)).¹ The Calcagni Memo states that a maintenance plan should include the following provisions: (1) an attainment emissions inventory; (2) a maintenance demonstration showing maintenance for 10 years; (3) a commitment to maintain the existing monitoring network; (4) verification of continued attainment; and (5) a contingency plan to prevent or correct future violations of the NAAQS.

On August 9, 2001, the EPA issued guidance on streamlined maintenance plan provisions for certain moderate PM₁₀ nonattainment areas (see Memo from Lydia Wegman, Director, Air Quality Standards and Strategies Division, entitled “Limited Maintenance Plan Option for Moderate PM₁₀ Nonattainment Areas” (LMP Option memo)).² The LMP Option memo contains a statistical demonstration states can use to show that areas are meeting certain air quality criteria with a high degree of probability and therefore will maintain the standard 10 years into the future. By providing this statistical demonstration, the EPA can consider the maintenance demonstration requirement of the CAA to be satisfied for the moderate PM₁₀ nonattainment area meeting this air quality criteria. If the tests described in section IV of the LMP Option memo are met, the EPA will treat that as a demonstration that the area will maintain the NAAQS. Consequently, it follows that future year emission inventories for these areas, and some of the standard analyses to determine transportation conformity with the SIP are no longer necessary.

To qualify for the LMP Option, a State must demonstrate the area meets the following criteria. First, the area should have attained the PM₁₀ NAAQS. Second, the most recent five years of air quality data at all monitors in the area, called the 24-hour average design value, should be at or below 98 micrograms per cubic meter (µg/m³). Third, the State should expect only limited growth in on-road motor vehicle PM₁₀ emissions and should have passed a motor

¹ The Memorandum from the EPA’s Air Quality Management Division Director to EPA Regional Air Directors entitled “Procedures for Processing Requests to Redesignate Areas to Attainment,” dated September 4, 1992 (Calcagni Memo) can be found at https://www3.epa.gov/ttn/naaqs/aqmguidance/collection/cp2/19920904_calcagni_process_redesignation_guidance.pdf.

² The “Limited Maintenance Plan Option for Moderate PM₁₀ Nonattainment Areas” Memo outlines the criteria for development of a PM₁₀ limited maintenance plan and can be found at <https://www.epa.gov/sites/production/files/2016-06/documents/2001lmp-pm10.pdf>.

vehicle regional emissions analysis test. Lastly, the LMP Option Memo identifies core provisions that must be included in all limited maintenance plans. These provisions include an attainment year emissions inventory, assurance of continued operation of an EPA-approved air quality monitoring network, and contingency provisions.

B. Conformity under the Limited Maintenance Plan Option

The transportation conformity rule and the general conformity rule (set forth in the Code of Federal Regulations (CFR) at 40 CFR parts 51 and 93) apply to nonattainment areas and maintenance areas covered by an approved maintenance plan. Under either conformity rule, an acceptable method of demonstrating that a Federal action conforms to the applicable SIP is to demonstrate that expected emissions from the planned action are consistent with the emissions budget for the area.

While the EPA's LMP option does not exempt an area from the need to affirm conformity, it explains that the area may demonstrate conformity without conforming to an emissions budget. Under the LMP option, emissions budgets are treated as essentially not constraining for the length of the maintenance period because it is unreasonable to expect that the qualifying areas would experience so much growth in that period that a violation of the PM₁₀ NAAQS would result. For transportation conformity purposes, the EPA would conclude that emissions in these areas need not be capped for the maintenance period and therefore a regional emissions analysis would not be required. Similarly, Federal actions subject to the general conformity rule could be considered to satisfy the "budget test" specified in 40 CFR 93.158 (a)(5)(i)(A) for the same reasons that the budgets are essentially considered to be unlimited.

While areas with maintenance plans approved under the LMP option are not subject to the budget test (see 40 CFR 93.109(e)), the areas remain subject to the other transportation conformity requirements of 40 CFR part 93, subpart A. Thus, the metropolitan planning organization (MPO) in the area or the state must document and ensure that:

- a. transportation plans and projects provide for timely implementation of SIP transportation

- control measures (TCMs) in accordance with 40 CFR 93.113;
- b. transportation plans and projects comply with the fiscal constraint element as set forth in 40 CFR 93.108;
 - c. the MPO's interagency consultation procedures meet the applicable requirements of 40 CFR 93.105;
 - d. conformity of transportation plans is determined no less frequently than every four years, and conformity of plan amendments and transportation projects is demonstrated in accordance with the timing requirements specified in 40 CFR 93.104;
 - e. the latest planning assumptions and emissions model are used as set forth in 40 CFR 93.110 and 40 CFR 93.111;
 - f. projects do not cause or contribute to any new localized carbon monoxide or particulate matter violations, in accordance with procedures specified in 40 CFR 93.123; and
 - g. project sponsors and/or operators provide written commitments as specified in 40 CFR 93.125.

If the EPA approves the second 10-year LMP, the Mendenhall Valley maintenance area will continue to be exempt from performing a regional emissions analysis but must meet project-level conformity analyses as well as the transportation conformity criteria described above.

III. Review of the State's Submittal

A. Qualifying for the Limited Maintenance Plan Option

As discussed in Section II.A. of this preamble, the LMP Option Memo outlines the requirements for an area to qualify for an LMP. First, the area should be attaining the PM₁₀ NAAQS. The PM₁₀ NAAQS is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one (40 CFR 50.6). We have evaluated the most recent ambient air quality data for the 24-hour PM₁₀ NAAQS and determined that the Mendenhall Valley area continues to attain the NAAQS with zero annual exceedances for the period 2018 through 2020. Table 1 of this preamble shows the Mendenhall

Valley area has not exceeded the standard of 150 $\mu\text{g}/\text{m}^3$ for the 24-hour maximum PM_{10} concentrations measured at the Floyd Dryden monitoring site from 2010-2020.

Table 1: Floyd Dryden 24-hour Maximum PM_{10} Concentrations 2010-2020

| Year | 24-hr Max $\mu\text{g}/\text{m}^3$ | Number of Days Exceeding NAAQS |
|------|--|---|
| 2010 | 30 | 0 |
| 2011 | 24 | 0 |
| 2012 | 26 | 0 |
| 2013 | 33 | 0 |
| 2014 | 38 | 0 |
| 2015 | 21 | 0 |
| 2016 | 34 | 0 |
| 2017 | 30 | 0 |
| 2018 | 24 | 0 |
| 2019 | 64 | 0 |
| 2020 | 35 | 0 |

Second, the 24-hour average design value for the most recent five years of monitoring data must be at or below the critical design value of 98 $\mu\text{g}/\text{m}^3$ for the PM_{10} NAAQS. The critical design value is a margin of safety in which an area has a one in ten probability of exceeding the NAAQS. The 5-year average design value for Mendenhall Valley, based on PM_{10} monitoring data from 2014 through 2018, is 49 $\mu\text{g}/\text{m}^3$. In addition, the EPA calculated the 5-year average design value for the Mendenhall Valley based on PM_{10} monitoring data from 2016 through 2020 and found the most conservative average design value estimate to be 62 $\mu\text{g}/\text{m}^3$, which is below the critical design value of 98 $\mu\text{g}/\text{m}^3$. The EPA's attainment and average design value evaluation used to determine if the area qualifies for the LMP option is included in the docket for this action. The EPA reviewed the data and methodology provided by the State and the most recent 5-year average design value and finds that the Mendenhall Valley area's 5-year average design value is below the critical design value of 98 $\mu\text{g}/\text{m}^3$ outlined in the LMP Option Memo. Therefore, the EPA finds that the Mendenhall Valley area meets the design value criteria outlined in the LMP Option Memo.

Third, the area must meet the motor vehicle regional emissions analysis test described in the LMP Option Memo. The State submitted an analysis showing that growth in on-road mobile PM₁₀ emissions sources was minimal and would not threaten the assumption of maintenance that underlies the LMP policy. Using the EPA's methodology, the State calculated total projected growth in on-road motor vehicle PM₁₀ emissions through 2033 (the end of the maintenance planning period) for the Mendenhall Valley area. This calculation is derived using Attachment B of the EPA's LMP Option Memo, where the projected percentage increase in vehicle miles traveled over the next ten years (VMT_{pi}) is multiplied by the on-road mobile portion of the attainment year inventory (DV_{mv}), including re-entrained road dust. This test is met when (VMT_{pi} x DV_{mv}) plus the design value for the most recent five years of quality assured data is below the margin of safety (MOS) for the relevant PM₁₀ standard in µg/m³ for a given area. This MOS value can be 98 µg/m³ or a site-specific value computed from data collected at the site of interest using methods outlined in Attachment A of the LMP Option Memo. The 24-hour average design value of 49 µg/m³ was used to compute a MOS selected for the Floyd Dryden monitoring site in Mendenhall Valley of 50.2 µg/m³, which is below the MOS value of 98 µg/m³. See the Mendenhall Valley LMP, Section III.D.3.4 and associated appendix, placed in the docket for this action, for details of this computation. The EPA reviewed the calculations in the State's LMP submittal and concurs with the determination that the area meets the motor vehicle regional emissions analysis test.

As described above, the Mendenhall Valley PM₁₀ maintenance area meets the qualification criteria set forth in the LMP Option Memo and accordingly qualifies for the LMP option. To ensure these requirements continue to be met, the State commits to evaluate monitoring data annually to ensure the area continues to qualify for the LMP option. However, if after performing the annual recalculation of the area's average design value in a given year, the State determines that the area no longer qualifies for the LMP, the State will take action to attempt to reduce PM₁₀ concentrations enough for the area to requalify for the LMP. One

possible approach the State could take is to implement a contingency measure found in its SIP. See Section III.D.3.9 of the State's submittal, placed in the docket for this action, for a description of the contingency measures.

B. Attainment Inventory

Pursuant to the LMP Option Memo, the State's submission should include an emissions inventory, which can be used to demonstrate attainment of the relevant NAAQS. The inventory should represent emissions during the same five-year period associated with air quality data used to determine whether the area meets the applicability requirements of the LMP option. The State should review its inventory every three years to ensure emissions growth is incorporated in the inventory if necessary.

Alaska's Mendenhall Valley PM₁₀ LMP includes an emissions inventory, with a base year of 2017. The assumptions, methods and computations used to generate the 2017 emissions inventory are described in detail in Appendix III.D.3.6 of the Mendenhall Valley LMP submittal in the docket for this action. The 2017 base year represents the most recent emissions inventory data available, is representative of the level of emissions during a period of time used to calculate the area is attaining the NAAQS, and is consistent with the data used to determine applicability of the LMP option (i.e., having no violations of the NAAQS during the five-year period used to calculate the design value).

Like the first 10-year LMP, four main source categories were inventoried for the second 10-year LMP. These include (1) On-Road; (2) Non-Road; (3) Area Sources; and (4) Point Sources. The same assumptions and methods used to develop the first 10-year LMP were used to develop the 2017 base year PM₁₀ emissions inventory for the second 10-year LMP. The analysis of the emissions inventory for the second 10-year LMP indicates that that the PM₁₀ emissions in the maintenance area declined by about 78% between 2004 and 2017 and shows paved roads remain the most significant source of fugitive emissions in the maintenance area. Fugitive dust from paved roads accounted for 46.2% of the overall inventory; fugitive dust from unpaved

roads accounted for 0.53%; and emissions from wood burning accounted for 8.4% of the overall inventory.

Efforts by the City and Borough of Juneau and the State to pave sections of unpaved roads and sweeping and sanding mitigation programs in the Valley, as well as the woodsmoke control program, have led to significant reduction in PM₁₀ emissions. In accordance with the LMP Option Memo, all controls relied on to demonstrate attainment and continued maintenance will remain in place, and ADEC asserts that no additional control measures are necessary to maintain the NAAQS.

The submittal meets the EPA guidance for purposes of an attainment emissions inventory, and the emissions inventory data supports the State's conclusions that the existing control measures will continue to protect and maintain the PM₁₀ NAAQS.

C. Air Quality Monitoring Network

Once an area is redesignated, the state must continue to operate an appropriate air monitoring network in accordance with 40 CFR part 58 to verify the attainment status of the area. From 1986 until the present, Alaska has operated a PM₁₀ monitor at the Floyd Dryden Middle School in the Mendenhall Valley NAA. The Floyd Dryden monitor was sited and maintained in accordance with Federal siting and design criteria in 40 CFR part 58, and in consultation with the EPA Region 10. On June 26, 2020, ADEC submitted the 2020 Annual Monitoring Network Plan, which the EPA approved on January 25, 2021. ADEC's network plan and the EPA's approval letter are included in the docket for this action.

The State commits to continued operation of at least one EPA-approved PM₁₀ monitoring site in the Mendenhall Valley maintenance area through the end of the maintenance planning period, 2033, and will continue to operate the monitor consistent with the EPA-approved ADEC annual network plan in order to meet the EPA requirements at 40 CFR part 58.

D. Verification of Continued Attainment

The level of the PM₁₀ NAAQS is 150 µg/m³, 24-hour average concentration. The

NAAQS is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu\text{g}/\text{m}^3$ is equal to or less than one (40 CFR 50.6). As stated in Section III.D of this preamble, ADEC commits to continue to operate a regulatory monitoring network in accordance with 40 CFR part 58. In addition, ADEC commits to verifying continued attainment of the PM_{10} standard through the maintenance plan period with the operation of an appropriate PM_{10} monitoring network. In developing the second 10-year maintenance plan, ADEC evaluated the most recent three years of complete, quality-assured data for the Mendenhall Valley NAA (2017 through 2019) to verify continued attainment of the standard.

E. Contingency Provisions

The CAA section 175A states that a maintenance plan must include contingency provisions, as necessary, to ensure prompt correction of any violation of the NAAQS, which may occur after redesignation of the area to attainment. As explained in the LMP Option Memo and the Calcagni Memo, these contingency provisions are an enforceable part of the federally approved SIP. The maintenance plan should clearly identify the events that would “trigger” the adoption and implementation of a contingency provision, the contingency provision(s) that would be adopted and implemented, and the schedule indicating the time frame by which the State would adopt and implement the provision(s). The LMP Option Memo and the Calcagni Memo state that the EPA will determine the adequacy of a contingency plan on a case-by-case basis. At a minimum, it must require that the state implement all measures contained in the CAA part D nonattainment plan for the area prior to redesignation.

In the Mendenhall Valley PM_{10} LMP, ADEC included maintenance plan contingency provisions to ensure the area continues to meet the PM_{10} NAAQS. The Mendenhall Valley LMP describes a process and a timeline to identify, evaluate and select appropriate contingency measure(s) from a list of potential measures in the event of a quality assured violation of the PM_{10} NAAQS. Within 120 days following a violation of the PM_{10} NAAQS an assessment team will evaluate the events contributing to the violation and identify the appropriate measure(s) that

may need to be implemented. Contingency measures that may be implemented to address the source and circumstances causing the violation and reduce emissions are listed in Section III.D.3.9 of the Mendenhall Valley LMP in the docket for this action. The identified contingency measure(s) may be adopted and implemented in coordination with the ADEC Commissioner, City Manager and assembly.

The contingency provisions submitted in the Mendenhall Valley PM₁₀ LMP are adequate to meet CAA section 175A requirements and the contingency provisions as outlined in the LMP Option Memo.

IV. Proposed Action

The EPA is proposing to approve the second 10-year PM₁₀ limited maintenance plan for Juneau, Mendenhall Valley submitted by the State of Alaska.³ The EPA has reviewed the air quality data for the Mendenhall Valley area and determined that the area continues to show attainment of the PM₁₀ NAAQS and meets all the LMP requirements as described in this action. If finalized, the EPA's approval of this LMP will satisfy the section 175A CAA requirements for the second 10-year period for the Mendenhall Valley PM₁₀ area.

V. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this proposed action merely proposes to approve State law as meeting Federal requirements and does not impose additional requirements beyond those imposed by State law. For that reason, this action:

³ The remainder of the November 10, 2020 State of Alaska SIP submission (the Eagle River Second 10-year PM₁₀ LMP; the 2019 Emission Limit Control Measures; and the 2019 Adoption by Reference Updates and Standard Permit Conditions) will be addressed in separate EPA rulemaking actions.

- Is not a “significant regulatory action” subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because it does not involve technical standards; and
- Does not provide the EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

The SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Particulate matter, Reporting and recordkeeping requirements.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: August 5, 2021.

Michelle L. Pirzadeh,
Acting Regional Administrator,
Region 10.

[FR Doc. 2021-17099 Filed: 8/10/2021 8:45 am; Publication Date: 8/11/2021]